

## **Abstract**

This work is focused on the RTX (Repeats in ToXin) domains structure of selected RTX toxins and its impact on secretion and protein folding. The structural analysis included RTX domains of ApxI (*Actinobacillus pleuropneumoniae*-RTX-toxin I) from *Actinobacillus pleuropneumoniae*, HlyA (Alfa-hemolysin) from *Escherichia coli* and LtxA (Leukotoxin A) from *Aggregatibacter actinomycetemcomitans* and blocs 4 a 5 RTX domain CyaA (adenylate cyclase toxin) from *Bordetella pertussis*. The structures of LtxA RTX domain and CyaA RTX blocs 4 and 5 were obtained and characterized. Two models of CyaA RTX domain were built based on SAXS (Small Angle X-ray Scattering) model, previously solved RTX structures and RTX structures presented here.